Amendments to the Specification

Please replace paragraph [00062] with the following amended paragraph.

The power supply 278 may be configured to be rechargeable from an external source in any conventional manner. The present invention, however, provides a self-powering feature that can be used with small rechargeable batteries or capacitors. With reference to Figures 5 and 6, a shock and vibration isolation system 300 according to an embodiment of the invention includes a spring ~~330~~310 and a semi-active damper 322, which may be an MR fluid damper or an ER fluid damper. The spring ~~330~~310 may be an air spring or other spring having suitable low frequency characteristics. The spring ~~330~~310 and the semi-active damper 322 are mounted in parallel between a load plate 302 and a base plate 304. The shock and vibration isolation system 300 also includes a controller 330 in electrical communication with the semi-active damper 322.

Please replace paragraph [00064] with the following amended paragraph.

Figure 6 is a schematic illustration of a recharging arrangement 350 according to one embodiment of the invention. The recharging arrangement 350 includes a spring/mass system 380 that can be attached to the load plate ~~310~~302 or to the equipment or structure mounted to the load plate ~~310~~302. The mass 384 of the spring/mass system 380 is or includes a magnet and is attached to one or more springs 382. The springs 382 are configured so that vibration of the recharging arrangement 350 causes the magnet to oscillate along the axis 390 of the system. One or more electrical coils 386 are disposed along the axis 390 around the magnet/mass 384. The oscillatory motion of the magnet/mass 384 induces a current in the electrical coils 386 which is passed through a rectifier bridge/filter 388 to the power supply 378. The power supply 378 may be any suitable power storage arrangement such as a battery or a capacitor bank.

Please replace paragraph [00076] with the following amended paragraph.

Each piezoelectric generator 480 may include one or more piezoelectric layers or crystals 50 configured and positioned so that its lower surface 462 engages the load plate ~~450~~402 and its opposing upper surface 464 engages the equipment 20 or an additional equipment support (not shown). Accordingly, vibratory motion of the load plate 402 and the supported equipment

results in reaction forces in the piezoelectric generator 480, causing it to produce an output voltage. To increase the voltage produced, the piezoelectric generators 480 may comprise one or more PSGs 460 formed from a plurality of piezoelectric crystals 50.

Please replace paragraph [00078] with the following amended paragraph.

Figure 10 is a schematic representation of the connection of a recharging arrangement 450 to an illustrative power supply circuit ~~478~~470. The power supply circuit comprises a rectifier bridge portion 472 and a power supply 478. The power supply 478 may be any power storage device such as a battery, or one or more capacitors, ~~that is~~ capable of delivering a 2.0 amp current to the semi-active damper 422 for approximately 1.5 seconds. In the illustrated embodiment, the power supply 478 comprises a plurality of capacitors C1, C2, C3, C4, C5 that are charged by the output of the recharging arrangement 450. The capacitors C1, C2, C3, C4, C5 may be high capacity chemical capacitors (ultracapacitors), which are compact and are capable of storing large amounts of energy. R_L is the resistance of the load when the capacitors C1, C2, C3, C4, C5 are discharged to power the semi-active damper 422. It will be understood by those of ordinary skill in the art that additional protective components such as diodes and balance resistors can be used to enhance the operational effectiveness and reliability of the power supply circuit 470, generally, and, more particularly, the capacitors C1, C2, C3, C4, C5.